# HEALTH

EDITED BY

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## Notes by the Way

"Health is the foundation of all our physical happiness."—*Herder.*

THE *People*, of date Nov. 4, is responsible for the following paragraph, descriptive of the remarks of Dr. Cantlie, of Charing-cross Hospital, at a lecture on "First Aid to the Injured," delivered at the Birkbeck Institution on Saturday night last. The lecturer's "technical explanations of the structure of the body were illustrated by reference to diagrams, which, as he explained, he had brought in preference to an actual human skeleton, the production of which before young men was sometimes attended by unpleasant consequences. On a recent exhibition of the skeleton to a class of volunteers, for example, no less than four of the men had fainted at the sight of it."

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IF these remarks be correctly reported, we can only suppose that Dr. Cantlie's experiences as a popular lecturer are of somewhat rare and singular kind. In the course of many years' experience of popular audiences, eagerly interested in the details of human anatomy and physiology, we have invariably used an articulated skeleton, as well as the detached and separate bones in illustration of our remarks. Not only have we never witnessed any untoward effects on our audience from the exhibition of such objects, but we have, contrariwise, everywhere seen an exhibition of the liveliest (and we would add, the healthiest) interest in the practical demonstrations which were thus afforded. Remembering also, that our audiences consisted (and are still composed as we write) of persons of both sexes, old and young, the case of the four galiant volunteers who fainted at the sight of a skeleton, grows more and more inexplicable. Did these young men never walk through even a natural history museum, where skeletons of animals are exposed to view for purposes of instruction? and if so, did they faint away at the sight of a monkey's bony framework, which, in all essential respects, is the close counterpart of humanity's skeleton? Again, we might ask in wonderment, how such an exhibition of morbid silliness is compatible with the professional ardour of volunteers? In these days, when schoolboys and schoolgirls are being taught the truths of physiology by practical demonstration on the skeleton, &c., the conduct of the volunteers mentioned by Dr. Cantlie, is, to say the least of it, highly remarkable.

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THERE is another point of view which Dr. Cantlie should not neglect to make a note of. We do not know what the ambulance class at the Birkbeck is taught, but this we make bold to affirm, that no lectures on "what to do in emergencies" can be thoroughly serviceable which are not practically illustrated. No one can be taught, for instance, how to treat a fractured bone, without seeing the bones as they exist in the skeleton, and without having an opportunity of studying their shape and relations to one another. No amount of pictorial illustration can ever replace the demonstrations of object-teaching, and of ambulance lectures above all else this holds singularly true. Persons who faint at the sight of a skeleton, are not likely to be of the slightest service to their fellow men who require their aid in any sudden emergency of life. We strongly advise Dr. Cantlie to produce his skeletons and other teaching apparatus, and to allow the "weak brethren" who faint to go home to the repose they evidently require.

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THE newspapers recently recorded the death of an infant in London from being pitched out of a perambulator which had come in contact with a brewer's dray as that vehicle rounded the corner of a street. This case was one of pure accident, no doubt; but the mention of the "perambulator" leads us to remark that the vehicle thus designated, unwisely used, is often the source of serious complaints and ailments amongst young children. A careless nurse may frequently be seen driving a perambulator in which the little occupant lies fast asleep, exposed to the influence of chill and cold. The warmth of children who are sent out in perambulators, in winter especially, deserves to be well looked to; and it may be added that there are not a few cases in which, for the safety and health of children, the perambulator might well be discarded during the entire winter. The warmth and comfort of a child are not readily ascertained as it sits in its carriage. Adults are not fond of riding in open vehicles in cold weather, and it seems worse than foolish to expose children, as is often done, to chill and cold in the perambulator.

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SIR JAMES PAGET, speaking of recreation, defined true amusement as consisting largely in variation of employment. The mental worker should seek manual labour; and the toiler who uses muscles all day, should seek his recreation in some light mental occupation. It is this principle of alternating our occupations, which lies at the root of success in amusing ourselves. Were such a principle more widely recognised, we should hear less of unsatisfied lives and unhealthy existences. The place of gymnastic exercises and physical exercises at large, in education, is more than justified when we reflect on the truth of Sir James Paget's remarks.

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WHAT the *Lancet* rightly calls "a ghastly overture," seems to be a tolerably common practice in London and elsewhere. The "overture" in question consisted in the offer (by circular) of an undertaker to give medical men a commission on funerals. We do not for a moment presume that the undertakers intended anything more than to suggest that where the doctors could recommend their firm they should do so. But the request was a highly imperti-

nent one, and represents a form of commercial enterprise which both the public and the medical profession will justly resent. Why does not our contemporary publish the name of the enterprising undertaker? It appears to us that the announcement of the name of the firm which thus caters for trade, would be the most severe punishment that could be awarded it. People would probably avoid a firm which possesses such original ideas in the way of pushing their commodities.

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RECENT experiments on the time required for the digestion of various articles of food present us with details of practical interest. By a series of elaborate investigations, it has been determined by Jessen that raw beef and mutton are digested most quickly, whilst half-boiled beef and raw veal require a longer period. Next follow thoroughly-boiled and half-roasted beef, raw pork, and sour milk. Fresh milk, skimmed milk, and goat's milk take a longer time still; and it would appear that well-roasted meats and boiled milk require the longest periods for their digestion.

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SPEAKING of experiments on the digestion of foods reminds us of the famous case of Alexis St. Martin, a young Canadian, on whom Dr. Beaumont experimented with the view of determining the time occupied in the digestion of various articles of food. These experiments will be fully detailed in future papers in HEALTH, in which the process of digestion will be duly described. It may suffice for the present to say that in St. Martin's case, a gun-shot wound in the side had healed in such a manner as to leave an opening which led into the stomach, and which was covered by a flap of skin. By raising the latter, the interior of the stomach could be seen. St. Martin lived to a ripe old age—he died three or four years ago—and Dr. Beaumont was able to make a series of important observations by watching how digestion proceeded in his patient. Even from the misfortunes of humanity, we thus see that much good may occasionally be derived. Cases allied to that of St. Martin in their nature, have been studied since Dr. Beaumont made his observations; and much information has been added to our knowledge of the manner in which the stomach performs its work.

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A CURIOUS case of unusual tooth development has been reported. A Hindoo boy, of fourteen, came to hospital with a growth inside his nose. The affection caused pain and annoyance, and led him to seek medical advice. When the growth was removed, it was found to consist of a tooth, resembling an eye-tooth in shape. In such a case the explanation rests on a simple study of unusual tooth-development. Teeth grow from the "gum" (or mucous membrane) and are not related to bones, as is commonly supposed. Through some abnormal development, a tooth-sac had been formed in the lining membrane of the nose, and in this unusual situation the offending body had grown as described.

WEST GREEN, TOTTENHAM, WEST GREEN COLLEGE FOR LADIES.—The Principal, MISS BRISTED, A.C.P., receives young ladies to board and educate in a thorough English education. Good schoolroom, furnished with all improvements in lighting and ventilation. Separate Swedish desks. Scientific gymnastic classes held twice a week. The pupils' studies are varied by frequent change of occupation and physical exercise. MISS BRISTED'S pupils have been very successful in the local University examinations. Good garden and tennis court. Prospectus on application.—[ADVT.]

# Original Essays

"Life is not to live, but to be well."—*Martial.*

## COTTAGE HOSPITALS.

### THEIR OBJECTS.

BY G. A. GIBSON, M.D., D.SC., F.R.C.P.E.

FIRST PAPER.

WHEN disease casts its shadow on the abode of the rich, it brings a burden hard to be borne, even with every comfort at hand; but, when it darkens the dwelling of the poor, it is apt to prove a millstone too heavy for the cottager's neck. Every aid in lessening this weight is a boon to the poor man and a gain to the people at large; no apology, therefore, is needed for dealing in HEALTH with any such means of adding to the well-being of our country.

In the large towns general hospitals are to be found where the sufferer may seek relief, but in the country—and it is to the country we mean to address ourselves—there was not, until a short time ago, any place of refuge for those labouring under the ravages of disease. During the last twenty-five years efforts have been made with much success to supply the want by means of small rural hospitals, about which we have to say a few words.

The small beginnings from which most movements have sprung are, as a rule, enshrouded in darkness. It is not otherwise with the commencement of the cottage hospital system. Attempts, vaguely foreshadowing some scheme of the sort, had been made here and there in the first half of our century, but the credit of bringing the village hospital into prominence belongs, without doubt, to Albert Napper, of Cranleigh. In 1859 he opened a small cottage as an hospital, and proved that results, at least as good as those of the large hospitals, could be got in the simple dwelling of the Surrey peasant. Since that date many other writers have strongly urged the claims of cottage hospitals,* and have made their usefulness clear to every reader. In this first paper we shall briefly set forth some of the benefits arising from village hospitals, and in the following numbers of HEALTH we propose to take up their construction, their furnishing, and their management.

The home of the cottager is but rarely suited to the needs of severe illness. The house may be in a bad situation, it may be damp, the rooms may be small, the air close, there may be an entire want of sanitary appliances, in short, in a hundred ways the dwelling may be unfitted for the tending of disease, and the patient would reap untold benefit if taken to the hospital.

Many still fondly believe that a wife, or mother, or sister, is the best nurse for the sick under all circumstances, without regard to her powers in the sick-room. It were well that the people at large should give up this amiable delusion, and come to see that, even with ready tact, a woman requires a special training before she can be looked upon as a nurse. To this we shall again

* If any of our readers are of a mind to enter more fully into the matter than our space will allow of, we would refer them to the following works:—1. "On the Advantages Derivable to the Medical Profession and the Public from Village Hospitals," by Albert Napper; 2. "Cottage Hospitals: Their Objects, Advantages, and Management," by E. J. Waring, M.D.; 3. "Handy-Book of Cottage Hospitals," by Horace Swete, M.D.; 4. "Remarks on the Establishment of Cottage Hospitals," by F. H. Harris; 5. "Cottage Hospitals: General, Fever, and Convalescent: Their Progress, Management, and Work," by Henry C. Burdett.

return in a later number, and in this place need only remark that in this way again the patient will get much good by going into the hospital.

It is without doubt no easy task to nurse an invalid in the home of a labouring man, more especially if there are children to be reared under the same roof. A case of illness that might have been easily checked with proper care, is apt to become more serious than it otherwise might have done, when the attention needed by the invalid has to be divided between the sick person and the little ones. If the patient is the head of a family, the pressure of disease is felt at its worst. Not only is the bread-winner stricken down, so as to be unable to earn the means of support for the household, but the nursing required must be bestowed at the expense of the children. The removal of the sick man to the hospital, therefore, not only gives him the good of such medical treatment as his malady needs, but it also allows the wife and mother to care for her offspring more fully, or even to make a little money wherewith to keep the wolf from the door.

In any part of the country where a cottage hospital has been built the people know that a haven of refuge stands with open portal to receive the sick. They are aware that it is a home-like place, where the sufferer will be greeted with warm welcome, and will be in the midst of surroundings like those at home. The patient personally knows that the highest medical skill of the district will be helped by trained nursing, and aided by proper food to remedy the disease, and so sets foot in the hospital with every confidence in a speedy recovery.

In such ways do village hospitals *directly* confer signal benefits upon the community, by lessening the evils inseparable from disease. But they are, moreover, *indirectly* a source of good to the country round about. The cottage hospital has, we shall suppose, been founded, as most of them have been, by the efforts of the professional men of the district, aided by the good-will and assistance of the wealthy and the well-to-do. They all work together for its welfare, and give their offerings to its support. The ladies visit the sick-rooms, and, by their womanly sympathy and kindly attention, win access to the hearts of the patients. The gentlemen watch over the financial condition and general management of the hospital, and in many ways help the clergymen and medical men in the discharge of their several duties. Thus the cottage hospital becomes a link between the various grades of society, and fosters feelings of respect and esteem by bringing them into contact with each other. It shows that the rich have an interest in the well-being of the people at large, and it brings forward also many acts of heroic endurance and unselfish devotion in the humbler walks of life.

But to all these social gains we may safely add that the advancement of knowledge receives a useful impetus from cottage hospitals. Many cases of surgical disease that would otherwise have to be sent long distances to the large city or town hospitals, can be treated in the country by means of the cottage hospital. Ay, and in some respects, better treated, too; for the scourge of *hospitalism*, about which we shall by-and-bye have something to say, still clings to numbers of the older general hospitals. There are very many diseases, also falling within the physician's province, which can only be properly watched over and cared for with the appliances of an hospital at hand, and which with these advantages prove amenable to the methods employed. With this retention and treatment of such cases come largely increased opportunities of gaining experience to the provincial practitioner. He is enabled to prolong his student days in the midst of a busy life, and to keep himself fully abreast of the strides daily being made by his profession. Nay, more than this, he may, and often does, add to the ever-enlarging store of scientific facts, and thereby bestows a useful gift upon humanity.

The hospital acts as a means of diffusing knowledge by the opportunities which it affords for deliberation in regard to the cases under treatment. Medical men cannot talk over the details of those maladies from which their private patients suffer, except in those grave cases where consultation is deemed necessary. But in the hospital, where they are colleagues, there are daily occasions of examining patients together, the good of which, to one another and to the public, cannot be too highly valued.

Besides, the mutual conferences held in the hospital bring about a good understanding between the medical men of a district, and strengthen the feeling of unity and fellowship which should exist, but which in rural situations is only too apt to become obscured by misconstruction or petty jealousies.

We have said enough to show how useful a cottage hospital may be. Many a poor man, who might have been permanently disabled, whose life might in all likelihood have crept "on a broken wing," has had to thank such an hospital for a return of health and happiness. And since the strength as well as the wealth of a people is largely dependent on its health, the nation owes a debt of gratitude to the system. The mutual good-will produced between different classes of society, that at present seem unfortunately to be ever more widely diverging, is in itself a great good to the people. And, finally, to the medical man the presence of an hospital is a boon which can only be thoroughly grasped by those who have worked in places destitute of such advantages as it confers.

## HOW TO BECOME THIN OR FAT.

By a Surgeon to Several Metropolitan Hospitals.

THIRD PAPER.

People who take too much food and stimulants and too little exercise sometimes become rapidly fat, and it is the custom among some savage races to combine rest and overfeeding, in order to become sufficiently fat to be considered *beauties*. The peculiarity of Kaffir women in this respect has been already alluded to, and Moorish women achieve a similar fatty distinction by eating plenty of fresh dates, and through drinking a liquor prepared from honey, and taking very little exercise. In order to prepare the young Jewesses of Tunis for the matrimonial market, they are kept, from the age of ten, in a small, dark room, and fed on meal and the flesh of young dogs, and in a few months become, what we should consider, unshapely masses of fat. One must have observed in this country that Jewesses, and often the males too, are very fat. This is partly due to racial proclivity, but chiefly to eating too much and taking too little exercise. In married women it is, to a great extent, due to their having large families quickly, and to the confinement and rest this entails. The idea that the obesity of Jews is entirely due to eating much fatty or oily matter cannot nowadays be maintained. The intelligent reader will observe that lack of exercise, combined with the ingestion of large quantities of starch and saccharine, (*i.e.* sugary) matter, is the cause of this rapid formation and accumulation of fat in Moorish Jewesses. Dancel relates the case of a young lady who, in order to maintain her figure, fasted four days in a week, living only on champagne and *marrons glacées*; corpulence very rapidly increased, but by returning to a proper mode of living she regained her form.

Two very important questions in the matter of fat formation and accumulation require answering, and they are—first, in what manner and to what extent do the different food stuffs contribute to the addition of fat to the body? and secondly, whether the fat is formed from the fat contained in the food eaten, or whether it is formed from the hydrocarbons or the albuminous matters taken with the meals? I may at once state that there are still many problems to be solved in connection with the chemistry of digestion, conversion and assimilation of food; but sufficient, however, is known for the present purpose, and it will remain, when we come to the question of treatment, to apply this knowledge judiciously. I have again to mention the names of two German workers, Ewald and Henneberg, who have recently made observations of moment in this matter, and I cannot but deeply regret that I am unable to quote any recent British chemists as having made discoveries in this important subject of the effect of various nutritive materials on the system. This apparent lack of interest in the matter is largely due to two circumstances—the one is, that pure science is merely its own reward in these islands; and the other is due to the vexatious restrictions on experimental inquiry which of late years have almost killed English physiology; but let us hope that with the teaching of natural science in our schools and colleges, and with the spread of scientific education, and also with the good done by the circulation of a journal like HEALTH, a sounder state of matters will hereafter prevail.

The origin of fat in the human body is one of the most difficult and most controverted questions in the physiology of nutrition; and the part that the three principal groups of simple alimentary substances—the fats, the hydrocarbons, and the albuminoids—play in the production of fat is far from clearly understood. It has long been granted that our fat may be formed from the fat, whether animal or vegetable, which is taken with the food; and that animals have the power of transforming various other substances into fat; but the process has not yet been thoroughly elucidated. The old view was that fat which was eaten, helped to make up the fat of our organs and tissues,—even allowing that a part of it became directly oxidised and did not enter into the constitution of the tissues. But the intermediate forms through which fat, pure and simple, or saponified, passes, before it is deposited in the tissues, are not yet made out. In carnivora, *i.e.*, dogs, cats, lions, tigers, &c., the food eaten suffices to keep up the supply of fat found in these animals; but in herbivora, *i.e.*, cows, sheep, &c.—and even in carnivora when fattening—it is not so; therefore, in them fat must be formed from one or both of the two remaining groups of alimentary substances.

## SANITARY GOSSIP.

By Dr. THOMAS J. HUTCHINSON, F.R.G.S.I.

(*Corr. Mem. of Anthropological Society at Florence, &c., &c.*)

"An I prate of things here and there,
'Tis only *Gossip*."

### KING DIRT.

IT was, no doubt, a pretty æsthetic idea for Lord Palmerston to have defined Dirt as "matter in a wrong place"; but with people accustomed to call a spade a spade, no name can be given to him but Dirt. Moreover, he is always in a wrong place, and can only be described in reference to his mission as the natural and relentless enemy to progress and civilisation, the cruellest of cruel tyrants against the good-health, comfort, well-being, and happiness of the whole human race. Let him be floating in the air you breathe, dissolved in the water you drink, suspended in and incorporated with the food you eat—he is the same. Meet him offending your senses of sight and smell, as you take your daily walk—where often he is revelling in the badly-drained conduits, in the foul sewers, in the fouler atmosphere of your crowded habitations—and you will find King Dirt everywhere, the parent, creator, and fosterer of your typhoids, choleras, fevers, dysenteries, and of all kinds of epidemic disease, be they contagious or not. "The great sanitary law," said Dr. Playfair, "is wash and be clean, and anything which stood in the way of observance of that law impaired the health of all communities." In the old mythological period there was but one set of Augæan stables, whereas now we find them located in almost every region of the globe; yet rarely do we find even the shadow of a Hercules to drive other rivers like the Peneus and Alpheus through them, and so they exist to counteract the law laid down by Dr. Playfair. How is it, we may ask, that no apostle or knight errant has ever come forward to buckle on a crusade against King Dirt? We have had, since the world began, champions, preachers, lecturers, reformers, agitators, revolutionists, orators, and still have them in thousands. *For* Magna Charta, *against* negro slavery, *for* total abstinence from intoxicating drinks, in favour of corn laws, vote by ballot, and land laws, against income-tax, window-tax, and scores of like things; but no single great warrior to oppose the greatest slavery of all ages and countries, the slavery of King Dirt. Now and then we have had strong efforts made by Chadwick, Southwood, Smith, Wilson, and others, but somehow the nation, or the people, or the government did not join with them, and so their flags did not flutter on to victory as yet, though we hope it is now getting a little *Excelsior*.

Often I wonder do people believe that King Dirt, with his satellites in the forms of foul air, bad drains, corrupt smells, and filth in every shape or form, has slaughtered more of mankind in the different plagues, pestilences, leprous diseases, yellow fevers, black sicknesses, choleras, and other epidemics, than were killed by all the wars that have been fought from the earliest ages till now? Look at the mass of evidence to be seen in "Haydn's Book of Dates," from the pestilence in Palestine, that in 1017 B.C. destroyed 70,000 persons in three days, down to this year's work at Dametta and other parts of Egypt. For it is proved by Dr. Schaffey Bey, as well as by Dr. Hunter, that the cholera was *not* imported from India, but was manufactured by King Dirt in his own laboratories on the spot. Yet we see M. Pasteur sending out a mission from Paris, the Emperor of Germany despatching another from Berlin, Dr. Domingo Irieze at Rio Janeiro, and more eminent scientists elsewhere, investigating the germ theory about *Bacilli*, *Cryptococci*, and such infusorial atoms. Very good! But in London, not far from Camden-town and Hampstead, only a few weeks ago, and at Paris whilst I am writing this, we know how King Dirt is snapping his fingers at the industry of the microscope and the test-tube. For he will play his little game, so long as he has material to work on. So he will go forward till he is driven from his strongholds and fortresses—the cesspools, the bad

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drains, the foul sewers, the close rooms; the tenements into which a breath of air never enters, the damp cellars wherein poisonous gases are daily eliminated. So long as he is allowed to prosper by feeding upon putrid garbage, reeking filth, and animal corruption, he will laugh at all the germ theories in the world. With unerring finger he can point out that the germs inherit life and activity of existence from the very same materials that are the daily creation of his maladies, or rather the maladies manipulated by him for mankind. He knows that from these resources, for one who dies of cholera in the worst years, two die every year of typhoid and other *preventable* diseases that are manufactured in his workshops.

Then out with your artillery and proclaim war to the death against King Dirt! Pour into his stronghold and fortresses such weapons of ordnance as 1, pure air; 2, pure fresh water; 3, and plenty of dried earth to deodorise all excreta. Then come up with your reserve battalions of 1, lime for whitewash, 2, sulphur pastilles where you desire to destroy the bad air that may have been infected. If you continue this state of siege with unremitting vigour, soon you may hoist your flag and cry out "Down with King Dirt for ever"!

THE DANGER OF THE TRADE IN FALSE HAIR. — Hair has been so illtreated by fashion that its vitality is now seriously impaired. What with the strain and overheating due to the blending of the false with the real, the binding, the crimping, the curling, and the dyeing, a vast number of ladies have prematurely lost all or a great part of this graceful appendage of the human form divine. Hence the unwelcome fashion, adopted per force, of wearing short hair, as preferable to no hair, has gained ground, and we hope that the refreshing effect of the scissors may repair some of the mischief done. At the same time, the demand for false hair has greatly increased, while the supply has diminished to an extent qualified as perfectly alarming by the West-end coiffeurs. Europeans either will not sell their hair or have no longer any hair to sell; and the trade has been compelled to travel farther afield. The actual supply of false hair for the European markets is now for the most part imported, *viâ* Marseilles, from Asia Minor, India, China, and Japan. But the hair imported from these countries is almost invariably black, and fails utterly to harmonise with the auburn and golden tints that so well befit a northern complexion. It has therefore been found necessary to boil the hair in diluted nitric acid to deprive it of its original colour, and it can then be dyed to the tint most in vogue. This operation has, however, been attended with considerable danger to the workmen engaged in this new handicraft. Severe coughs, bronchitis, and other accidents were the natural results of the nitrous vapours escaping from the cauldrons used for boiling the hair. This new danger appears to have been first discovered by Dr. Felix, of Bucharest, and the Roumanian Council of Hygiene has issued a circular to all members of the trade warning them of the danger, and suggesting the necessary precautions. These facts fail to harmonise with the poet's conception that beauty can draw love with a single hair. The demand is for hair by the ton, and it is time to see that in adapting the colour of Eastern hair to Western usages the work should be carried out under proper supervision. We should strongly object to hairdressers indulging in amateur dabbling with dangerous chemicals, especially nitric acid.—*Lancet.*

DR. NICHOLS' PENNY VEGETARIAN COOKERY-BOOK.—Every household should possess this marvel of cheapness. Free for 1½d.—NICHOLS & Co., 23, Oxford-street, London, W.—[ADVT.]

# Personal Health

"Be timely wise;
With health all taste of pleasure flies."—*Gay.*

## THE MORNING BATH.

THE morning bath holds a well-established place among domestic arrangements. Cold water is usually and properly preferred for this purpose by those who can bear it. Apart from its cleansing property, which is valuable as promoting excretion from the skin, and so relieving deeper excretory organs, especially the kidneys, we can, by means of cold water, apply a degree of cold to the surface of the body which, when suitably regulated, is both salutary and agreeable. Such a shock essentially constitutes a check upon the peripheral blood-vessels, causing their contraction and a concentration of the blood contained in them on the heart and internal organs. Associated with this, and practically inseparable from it, is nervous shock, of which the sensation of cold is the indication. This vascular (or circulatory) repression, however, has its natural and unfailing counterpoise in the reaction by which a healthy heart, stimulated by the temporary and unwonted resistance, redoubles its action to overcome it, and succeeds in flushing anew the surface channels of the circulation. We may thus regard the action of cold in moderation, on the muscle of the heart, as a means of seasonably exercising this most important of our vital organs, and thus of maintaining its tone. It is clear, from the above remarks, that we do not oppose the practice of morning bathing, but rather approve of it. But a caution must accompany every general statement, and this is no exception. There are those whom a cold bath injures, instead of invigorating. The readiest test of benefit is the glow of free surface-circulation, or at least the absence of any decided sense of chill after immersion. Some do not experience this. Among these are the subjects of heart-weakness, arising from whatever cause; it may be consequent on organic disease of the heart, on old gout or rheumatism, or on overwork and underfeeding, in which case it is a part of a general debility. Again, there is in some a tendency to engorgement of one or other deep-seated organ with blood, a kidney, the liver, &c. This is commonly the result of a previous inflammatory attack, or of visceral disease at the time existing. Surface-cold aggravates the congestive tendency. Obviously, therefore, such persons, if they bathe, ought to use tepid water; and, in renal disorders, this method is often advantageous. In slight cases, cold is not injurious if the ablutions be expeditiously gone through, and restricted to periods of summer weather. The aged should avoid cold baths, and commonly do. Infants, if ordinary despatch is used in bathing and in dressing, have no reason to fear them. Their powers of reaction are excellent. We will not say that children suffer seriously from the maternal dread which warms their morning tubful; but they lose somewhat by the want of that salutary exercise of the circulatory organs which we have mentioned. In the absence of actual disease, debility, if present in a decided degree, contraindicates sudden cold affusion. We say decided, because there are lesser degrees of atony (want of tone) which are the better for it. These are not far below the level of health, and retain a fair measure of latent energy capable of development. All persons in health and of average strength may use a cold bath daily, in summer at least. In winter, we have mornings of extreme frost, which try the strongest constitution. Only the strongest are likely to benefit

by a plunge on these occasions. Fortunately, with us they are rather the exception than the rule; and, for the most part, individuals of moderate powers and free from disease may carry the cleanly practice of summer through the winter months. A word on the bath itself. Those who take to it should begin in summer, not winter, and so become gradually accustomed to its lowest temperature. No one should linger over it; three or four minutes are ample. After immersion, the body should be quickly and well dried and rubbed before dressing. Light gymnastic, dumb-bell, or club exercise, may occupy the next few minutes, the clothes being partly on if the weather be cold, and breakfast, or a cup of warm tea or coffee, should shortly follow, to prevent chilling.—*British Medical Journal.*

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Teeth.—The Rev. Samuel Croxall, translator of "Æsop's Fables" from the Greek, "died of fever occasioned by the pain he underwent in cutting a new set of teeth at the great age of ninety-three." Edward Progers, aged ninety-six, died, in 1713, "of the anguish of cutting teeth, he having cut four new teeth, and had several ready to cut, which so inflamed his gums that he died thereof." The late Sir George Cornewall Lewis was very sceptical as to people ever living to the age of a hundred; he would, probably, therefore, have pooh-poohed the story of Robert Lyon, of Glasgow, who cut a new set of teeth at the age of a hundred and nine; and still more that of James Hook, of Belfast, who, in the time of Queen Elizabeth, and at the age of a hundred and twelve, "gott a new sett of teeth, w$^{ch}$ has drove out all y$^{e}$ old stumps."

Measurements of the Depth of Sleep.—Two of Vierordt's pupils, Mönninghoff and Piesbergen, have made the depth of sleep the subject of an investigation. They worked upon the principal that the depth of sleep is proportional to the strength of the sensory stimulus necessary to awaken the sleeper, that is, to call forth some decisive sign of awakened consciousness. As a sensory stimulus they made use of the auditory sensation produced by dropping a lead ball from a given height. The strength of the stimulus was reckoned, in accordance with some recent investigations of Vierordt, as increasing, not directly as the height, but as the 0·59 power of the height. For a perfectly healthy man, the curve which they give shows that for the first hour the slumber is very light; after 1 hour and 15 minutes the depth of sleep increases rapidly, and reaches its maximum point at 1 hour and 45 minutes; the curve then falls quickly to about 2 hours 15 minutes, and afterwards more gradually. At about 4 hours 30 minutes there is a second small rise which reaches its maximum at 5 hours 30 minutes, after which the curve again gradually approaches the base line until the time of awakening. Experiments made upon persons not perfectly healthy, or after having made some exertion, gave curves of a different form.

Murdock's Liquid Food. — Extract from the *Lancet*. — This American preparation is described as "an extract of beef, mutton, and fruits, containing corpuscles, and 12½ per cent. of soluble albumen." The solution gives the blood spectrum very strongly, and contains so much albumen as to become almost solid with dilute nitric acid. Of course it is an exceedingly powerful and easily digestible form of food. It is calculated to be of the utmost use in medical practice. Among other applications, the use of the liquid food as an enema will strike every one.—Van Abbott, Infant, Invalid, and Diabetic Food and Mineral Water Warehouse, 5, Princes-street, Cavendish-square, London, W.; American A B C cereals and foods generally. Depôt for Brand's (May Fair) Meat Preparations.—[Advt.]

# The Body and its Structure

"The proper study of mankind is man."—*Pope.*
"What a piece of work is a man!"—*Shakespere.*

## NO. XXII.—THE WORK OF THE MUSCLES.

By A. J. Manson.

When, as has already been remarked, we examine the muscular system of any animal, we discover that the "muscles" of which it is composed are arranged in groups or series, and are frequently combined in the performance of the varied actions of the body—as, for example, in the bending or extending of the fingers. But conversely, each "muscle" is found to have its appointed work or duty. As we have seen, only one end of a muscle moves, the other end being fixed. The extremity which moves is called the *insertion* of the "muscle," and anatomists speak of a muscle being "inserted" into this bone or that. The fixed end of a muscle is its *origin*, and hence this part of a muscle is spoken of as "arising" from a bone. If we look at Fig. I., which represents the superficial layer of the muscles of the fore-arm, we may see the *tendon* (or sinew) of the *biceps* muscle (1) (described in our last paper) passing downwards to be "inserted" into the radius-bone of the fore-arm. It is this end which moves when the fore-arm is bent on the upper arm (as in the act of lifting the hand to the mouth) by the biceps muscle.

Fig. 1.—Superficial Muscles of Fore-arm.

Each muscle, as a rule, ends in a "tendon" or "sinew." The tendons are the glistening white cords, formed of stout fibres, which thus serve to attach the muscles firmly to the bones with which they are connected. The tendon-fibres being stronger than the fibres of the muscle itself, we can readily enough discover the advantage which is gained by nature's device in attaching the muscle to its bone by means of the sinew, in place of utilising the flesh fibres themselves for this purpose. The white tendons of the various muscles (flexors) which bend the fingers are depicted in Fig. 1, where the sinews are seen (5, 6, 7) passing downwards to be attached to the fingers. In Fig. 2—which shows the *diaphragm*, or *midriff* (viewed from the front, and showing its upper or chest side), the great muscle forming the floor of the chest, and acting as the chief agent in "inspiration" or taking in a breath—the central tendon of the muscle is shown at 3, whilst another tendon is figured at 10.

The upper muscles of the palmar or front surface of the fore-arm (shown in Fig. 1) afford a good idea of the general relations of muscles to each other. Above (1) the end of *biceps* of the upper arm is seen; whilst another muscle (called the *brachialis anticus*) is shown at 2. The latter muscle protects the elbow-joint, and assists in bending the

Snelgrove's Governor Gas Burners.—Save quarter to half the gas bill. 15s. per dozen. Samples 18 stamps. Lists free.—60, Queen Victoria-street, E.C.; and of all Ironmongers.—[Advt.]

fore-arm on the upper arm. At 3 is seen part of the *triceps* (or "three-headed") muscle, which extends the fore-arm just as the biceps bends it. Each muscle is thus seen to perform one duty only, as it were. At 4, a *pronator* muscle is depicted. It is the duty of this latter to assist in "turning the wrist," as when we turn the palm of the hand backwards. A "flexor," or tendon of the wrist, is seen at 5; and the *palmaris longus* muscle (6) tightens the stout membrane of the palm (9), and bends the wrist and fore-arm also. At 7, we see part of a muscle which bends the second joints of the fingers; and at 8, another "flexor" muscle of the wrist. The muscle figured at 11 is the *abductor pollicis*, a muscle which separates the thumb from the fingers, and assists in giving to the thumb its great range of movement; while the *palmaris brevis* muscle (10) wrinkles the skin of the inner side of the palm of the hand. The muscle marked 13 is the *long supinator* muscle, which assists in turning the palm upwards when the hand has been lying palm downwards; and at 12 is shown one of the bending muscles of the thumb.

The *diaphragm* or *midriff* (Fig. 2), as has already been explained, is the great muscle which separates the chest from the abdomen. It is the chief agent in inspiring, and thus aids in enlarging the chest. The bulk of the muscle is shown at 1, 1, while the rib-cartilages are seen at 2, 2.

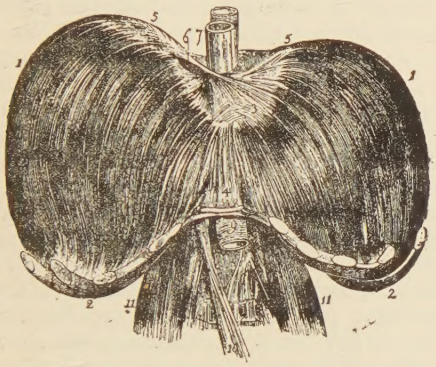


Fig. 2.—The Diaphragm or Midriff.

The centre tendon is seen at 3; and the gullet (7), great main artery (9), and *psoas* muscles (11, 11) are also seen. When the midriff acts, it is drawn downwards, and thus extends the chest. In hiccough and sobbing, it is the diaphragm which is spasmodically affected; and in laughing or crying, its action is equally distinct.

We have already seen that to the action of muscles the "expression of the emotions" is due. The play of the features is carried out by means of muscles, and the face thus comes to represent "the dial of the mind." In Fig. 3, the superficial muscles of head and neck are seen. The nose muscles (1-6) are more or less rudimentary in man as compared with their development in lower life; and of the ear muscles (22, 23, 24) this remark holds true. The great muscle (*occipito-frontalis*) (20, 27) raises the eyebrows by the contraction of its front portion, as well as the skin over the root of the nose. The two parts of the muscle (20, 27) are connected by a broad band of fibres (32) resembling tendon-fibres in their nature, and covering the top of the skull. The eye-muscles are also well shown in this figure: that figured at 19 (the *orbicularis*) closing the lids; while that depicted at 26 draws the eyebrow inwards and downwards, and wrinkles the forehead. The *orbicularis* of the mouth (8) closes the lips and contracts the mouth-opening; while the great *masseter* muscle of the jaw (13) raises the lower jaw against the upper, and thus assists in chewing. The broad muscular sheet (30), called the *platysma*, is a rudiment in man of a skin-muscle largely developed in lower animals. It wrinkles the skin of the neck, and assists in drawing down the lower lip and angle of the mouth, as in the expression of melancholy. The *sterno-mastoid* muscles (28), acting together, bend the head on the chest; but when one acts, it draws the face towards the shoulder of that side. The *trapezius* muscles (29) of the back act in various way; when the head is fixed they elevate the shoulder, as when a weight requires to be carried; but if the shoulders are fixed, they draw the head

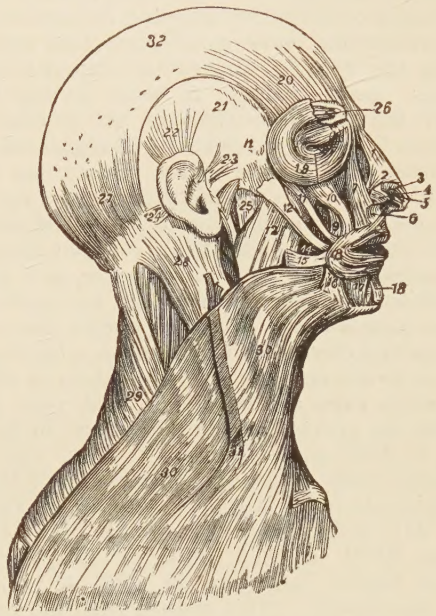


Fig. 3.—Muscles of Head and Neck.

backwards when acting together, or to one side if only one muscle acts.

A final feature of interest in the history of muscles is found in the peculiar "stiffening" which muscles undergo after death. This is called *rigor mortis*, or *death rigor*. In the dead body, the muscles appear to contract, and to fix the body in its position of rest. The neck and lower jaw are first affected; then succeeds the rigor of arms, body, and legs. The stiffening passes off in much the same order as that in which it appears. About ten minutes is the shortest period after death at which the stiffening of muscles begins; while this process is never delayed beyond seven hours after life has become extinct. It is curious to note that in cases where there has existed great exhaustion of the muscles, this *rigor mortis* begins soon after death. It comes and goes very quickly after death which is due to wasting diseases. Conversely, where the body has been well nourished, where death has been sudden, and where, therefore, the irritability of the muscles remains long in force, the stiffening is delayed in appearance and lasts for a considerable period of time.

"The Money Question Considered." E. W. Allen, 4, Ave Maria Lane, E.C. The money question in connection with the State purchase of Railways. "A small pamphlet full of facts." By post, 1½d.—[Advt.]

Sanitary Inspections.—Fee for Survey and Report, in London, 2 Guineas. Estimate given and Improvement Works carried out when required.—The Sanitary Engineering Co., 115, Victoria-street, Westminster, S.W.—[Advt.]

THE LAW AND THE QUACKS IN LIVERPOOL.—This city has for years past had a most unenviable notoriety for the shameless impunity with which the advertising quacks have been permitted to distribute their filthy literature in the open streets. Fortunately for its future credit, the Liverpool Improvement Act, 1883, will enable the authorities to deal successfully with this serious evil. Under the 32nd section of this new Act a man has been convicted and fined 10s. and costs for distributing indecent books, and it was stated by the prosecuting solicitor that the magistrate had discretionary power to inflict absolute imprisonment, without the option of a fine. Mr. Raffles, the stipendiary magistrate, expressed his satisfaction that such a law had been passed.

COMMON LODGING-HOUSES IN LONDON AND PARIS.—It is a lamentable fact that our neighbours, instead of coping with the danger of cholera by adopting, at least, elementary sanitary precautions, have spent their best energies in denouncing the policy of England in respect to maritime quarantines. As an example in point, we may take the housing of the poorest sections of the population. In London these live in what are known as registered common lodging-houses, and in spite of the poverty and irregular habits of this class, the mortality among them is a little less than the average mortality of the entire metropolis. This result must be attributed to the constant inspection of these lodging-houses by the sanitary police, and the excellent regulations with regard to drainage, ventilation, &c. In Paris the reverse is noted. Disease is always most prevalent in buildings that correspond to our common lodging-houses, for there is no sanitary police to keep them in order. In London, strict rules are laid down, and very generally carried out, to prevent overcrowding, but in Paris overcrowding is daily on the increase. Thus, our sanitary commissioner, when reporting on the causes of the recent typhoid epidemic in Paris (*vide* the *Lancet* of January 6, 1883, p. 31), noticed that the number of poor lodging-houses was 9,050 in 1876, with 142,671 tenants, and that these figures had risen in 1882 to 11,335 and 243,564 respectively. This showed that the number of lodgers augmented far more rapidly than the number of lodging;houses, the overcrowding being thus aggravated. We also gave statistics of the quarters where the rate of mortality from typhoid was the highest, and this corresponded with the district where the greatest number of lodging-houses, and the most overcrowding, had been recorded. Apparently nothing has been done to check this evil. A plentiful supply of statistics has been prepared by the authorities on this subject, and the police keep the keenest watch on each individual lodger; but nothing is done towards supplying traps to the drain-pipes, ventilating the rooms, or for the removal of the closets from the vicinity of the bedrooms and other unsuitable positions. Fever is constantly present in such houses, but effective disinfection and isolation are never practised. The size of the houses, many of them having as many as six storeys and 200 inhabitants, aggravates all these sanitary defects. Fortunately, the French poor spend the greater portion of their time out of doors, and are also more tidy and clean in their rooms and in their dress than the same classes in London. It is rare to see in Paris the filthy bedding on which our lower classes are content to sleep. The greater sobriety and thrift of the French poor help to counteract the unwholesome condition of their dwellings; but it is high time the French Legislature should protect them from infection by some enactment which would carry out, on a larger scale, provisions similar to those of our Common Lodging-houses Act of 1851.—*Lancet.*

# The Family Circle

"The child is father of the man."—*Wordsworth.*
"In bringing up a child, think of its old age."—*Joubert.*

## THE DOMESTIC USES OF THE CLINICAL THERMOMETER.

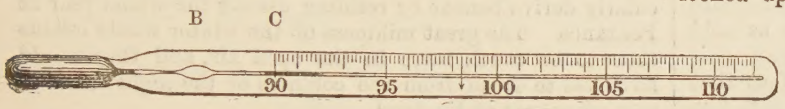
BY M.D.

FROM the appearance of mystery on the part of large classes of our patients when the temperature of the body is accurately taken, we may infer that the purpose of our pains is as yet but little understood, and certainly the value of close observation regarding this important factor in disease is as yet unappreciated outside medical circles. It is a singular reflection that, up till quite recent times, the medical profession overlooked a means of ascertaining the patient's condition which appeared to be so close at hand; that the temperature of the atmosphere, outside and within the bedroom, should be considered of importance, as well as that of baths, affusions, &c., and yet no inventive genius was found to supply an instrument of precision for obtaining the heat of the body itself. The hand laid upon the forehead or other part was deemed a sufficient index of the patient's temperature; and this is still the method relied on by a few antiquated physicians, and by the public generally. It should be known that it is quite impossible for even an educated physician to *approach* exactness by touch alone; that the conditions to be considered are so numerous and variable, as to upset the calculations of the most experienced observer; and that a mistake in such a matter may be very serious indeed. The temperature and degree of moistness of the patient's skin, as well as those of the hand employed, have the most obvious effect in disturbing our confident opinions; and, as a matter of fact, we have seen a consulting physician, deservedly esteemed, *guess* a temperature at 102° when the thermometer showed it to stand at 106°. The child's state appeared otherwise improving, yet this little observation told us that death was probably at hand. But for the thermometer, the mother would have been assured of her child's safety; as it was, we warned her of the event which happened but a few hours later. It is not, however, to urge physicians to use what they now deem indispensable that we write, but rather to show our readers how valuable is this instrument as a domestic resource in cases presenting difficulty. In a trifling ailment its use is for reference, in a serious attack it may give immediate warning that the physician is required; and even while the doctor is in attendance he often wishes observations regarding the temperature to be taken several times a day, in his absence, for his guidance and information.

Let us offer a few illustrations of the uses to which the clinical thermometer may be put by any intelligent person. The natural temperature of the human body is 98·4°, and the little arrow seen on the thermometer (see illustration) indicates this normal degree of heat, so that when the index (as will hereafter be explained) rests at the arrow, the natural temperature is proved to be present. It is the variations above or below the arrow that mark the presence of disease.

The agony of colic is well known, but it is generally felt to be of little danger in the absence of inflammation. In peritonitis or inflammation of the bowels, the temperature runs quickly up to over 101°; in colic it scarcely rises more than a degree, if even thus far, above the natural

temperature, namely, 98°·4. A severe pain in the side is felt, and pleurisy is suspected. If the temperature is normal, there is no pleurisy, and the pain is probably neuralgic. Diarrhœa may continue for a few days, and the patient feel so out of sorts that typhoid fever seems to have set in; but we know that all the specific forms, such as typhoid, typhus, scarlet fever, diphtheria, or measles, are accompanied by such an increase of body heat as will probably send up the record to 101°, or possibly three or four degrees higher. A child with persistent vomiting, sore throat, and high temperature will probably in a day or so show the rash of scarlet-fever. In any case, when a temperature remains above 100° or 101° for more than a day, or perhaps two days, without obvious cause, the doctor should be consulted, as the danger flag has been hung out. If the child has disordered stomach or sustained a chill, the thermometer will record fever, but, after a purgative in the one case and a tepid or hot bath in the other, the increased heat will be found to be gone, and with it any alarm which may have been felt. In the course of an inflammation or fever, the friends can be informed by the medical man what degree of heat he expects, and should this be exceeded the doctor should be informed of the fact. Indeed the clinical thermometer is an instrument which every family of education should be possessed of; its uses are manifest both as evidencing disease and health, and especially to families at a distance from their medical adviser, its value may be immeasurable.




Casella's Clinical Thermometer

It can be obtained from any instrument maker for from 7s. 6d. to 12s. 6d., or more. Its application is a very easy matter. The bulb containing the mercury should be placed in the mouth or armpit; care should be had in the last case that clothes do not intervene between the instrument and the arm, and that it is so placed in the arm-pit as to be completely surrounded by skin. The patient must then press the arm gently to the side so as to retain the instrument, and in five minutes the thermometer will show the body's temperature.

We give an illustration of Mr. Casella's "Infallible" Clinical Thermometer, to be obtained of the maker at 147, Holborn Bars, London. The thermometer of Mr. Casella possesses, as shown at B in the illustration, a small chamber or "trap." When in use, the index C, being composed of mercury, expands on reaching the chamber B, and nearly fills the space, while, by aid of a contraction below, the enlarged index is preserved and prevented from being lost or disarranged. Time and trouble in taking observations are thus saved. In setting the thermometer, the index or small *detached* piece of mercury (C) is made, by one or two swings of the arm, to pass downwards so that its top is brought down to about 95°, and *not lower*. The bulb is then inserted in the mouth or arm-pit as described for three or five minutes, when, on removal, the *top* of the index will register or show the exact heat. The "index" in Mr. Casella's "Infallible" Thermometer can never give a wrong indication or shift from its position until it is "re-set" for a fresh observation. Mr. Dollond, of 1, Ludgate-hill (as was duly noted in HEALTH No. 30, page 77), also sells a highly useful and safe Clinical Thermometer for family use.

It should be added that, if used to take the temperature of patients suffering from infectious disease, the thermometer should be disinfected by being washed in "Sanitas" or carbolic acid solution after each time of using. In taking the temperature under the tongue, the index should be "set" as directed, and the bulb should be placed as far back under the tongue as convenient and agreeable; the mouth should then be kept shut, and the patient should breathe through the nose. Three minutes are sufficient for taking the tongue-temperature. In the arm-pit the thermometer should be left for five minutes, and the fore-arm should be made to lie across the chest, so that the thermometer may thus be made to rest in a sheltered position.

The temperature should be taken in ordinary cases at 8 a.m. and 8 p.m. Two o'clock is a convenient hour for a third observation. Variations in temperature, it should lastly be remarked, occur in healthy persons, but such change does not usually amount to more than 2° or 3°. What is to be regarded as deserving of attention under the ordinary circumstances of life is a fall below 97°, or a rise above 99·5. In fevers, as a rule, the temperature does not rise above 106°; but in fever a heat of 108°, continuing even for a very short time, would be regarded as a symptom of the most dangerous character.

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REGARDING the temperature in health and disease, Dr. Semple gives the following interesting hints in the *Medical News*:—"1. A very high or very low temperature must be looked upon as dangerous; should it be excessive either way, the case will probably prove fatal. 2. A very sudden change is suspicious, and very frequently dangerous. In children, however, the presence of indigestible food in the intestinal canal, may suffice to cause a rapid rise in the temperature. 3. After the temperature has been stationary for some time, or has commenced to fall, a fresh rise may herald the advent of some complication, or the approach of a new disease. 4. An unexpected fall may denote hæmorrhage, exhausting diarrhœa, or the perforation of the peritoneum or pleura (lining membranes of abdomen and chest). 5. A considerable rise during the course of a disease which is not generally regarded as febrile—viz., in tetanus, epilepsy, and cholera—usually precedes death."

GREEN OYSTERS.—In the Biological Section of the recent meeting of the British Association for the Advancement of Science, at Southport, Professor Lankester, F.R.S., gave an account of an investigation he had made into the colouring matter of the green oyster. The cause of the green colour in the oyster was decided fifty years ago by a French oyster-cultivator, who was in the habit of producing them for the Paris market. This gentleman found that in the ponds in Normandy in which these oysters were produced there was always a green deposit. He thought it was a vegetable substance, and called it *Vibrio ostrearis*. It had since been maintained that it resulted from the contact of the oyster with copper, and it had been alleged that cases of poisoning had in consequence occurred. The explanation, though plausible, as there were minute quantities of copper in the tissues of the oyster, was not the real one. The green substance to which he had referred had been found to be living protoplasm. It came from a microscopical organisation known as the *Mavicula ostrearis*. This organism was swallowed with the water by the oyster, was absorbed into the blood, and the colouring matter was deposited on the surface of the gills and the labial tentacles. It imparted no particular flavour to the oyster, for he would defy any man to distinguish between the green oyster and the white one with his eyes shut.—*British Medical Journal.*

# Recreation and Health

"Health is the vital principle of bliss,
And Exercise of health."—*Thomson.*

## A WINTER AT PENZANCE.

As a winter resort for invalids and others, perhaps no place in England is so rapidly coming into favour and notoriety as Penzance and its charming neighbourhood. There is a very large class of people who are precluded, both from motives of economy, and by the necessary sea-voyage, from wintering in the South of France, or other continental resort. A very excellent and in every way satisfactory substitute will be found in the town just mentioned.

The climate of Cornwall is one of its most peculiar and distinguishing characteristics, in which it forms so marked a contrast with the general climate of this country. The south side is warmed during winter by a submarine current that reaches it from the Gulf of Mexico, or the Gulf Stream, and at that time the sea is four or five degrees warmer than the land.

According to closely-made calculations, the seasons may be said to be some weeks more advanced here than in the North of Italy, but generally agreeing with Naples. This advantage lasts until the end of March. From the early part of May onwards Cornwall loses all its premature gains, if compared with those counties which are as cold or colder in winter, but considerably hotter than this county in summer. It is a well-established fact that trees are often in leaf in the vicinity of London quite two weeks in advance of those in Cornwall. The reasons are very plain. Our vernal-like winter does not allow the proper and essential ripening of the newly-made wood, therefore the vital principle of vegetable life continues in action, consequently the tree has not fully performed the functions of one season before it commences upon that of the next; in short, vegetation seems to be ever in a more or less progressive state, and this fact may be suggestive of there being a perpetual spring in Cornwall.

Cornish summers are as remarkable as the winters. We have no summer that brings with it a solar heat equal to that of the Midland counties. Thus, to many people the climate of Penzance is still more of a desideratum. The following information is summarised from Dr. Forbes' treatise, "Observations on the Climate of Penzance," a work which has long since been out of print.

The general character and peculiarities of the climate of this district depend, as in other cases, on its geographical position and physical configuration. Placed in the lowest latitude of the island, its seasons ought on this account to possess a more genial character than those of the more northern part, and this effect of geographical position is greatly increased by other circumstances. The whole of Cornwall, indeed, but more especially the Land's End district, possesses, as far as regards climate, all the advantages and disadvantages of a small island.

Although our winter temperature is very high, our summer temperature is very low, and for this circumstance will approximate one mean temperature to that of places of much more inclement seasons. The truly peninsular situation of Penzance accounts for the remarkable equability of its temperature, which is conspicuous no less in the variations of temperature of successive days or hours than in the extreme range of the day, month, or year.

Cornwall has ever been obnoxious to the charge of great humidity. In so far as the charge rests on hygrometrical humidity, and also on the number of days on which rain falls, perhaps it is well founded; but, as regards the actual quantity of rain, the imputation is certainly beyond the truth. Mr. Borlase has accurately observed:—"Our rains in Cornwall are rather frequent than heavy or excessive, and we have very seldom a day so thoroughly wet but that there is some intermission, nor so cloudy but that the sun will find time to shine."

Fogs are not by any means common, and when they do occur are of the most ephemeral character. Frosts are slight and transient; this is so remarkably the case, that it is a rare occurrence for the ponds in this district to be frozen over sufficiently to bear the weight of a man, or even of a boy.

The climate of West Cornwall is fully as remarkable for its great variability in respect to wind and rain, as it is for the singular unchangeableness of its temperature. Westerly winds are much more prevalent in this district than any others; the direct south winds are much more prevalent than the direct north winds, yet winds from all the northerly points, taken together, are considerably more prevalent than from all the southerly points—this is principally owing to the greater prevalence of the north-west winds.

Sir James Clarke observes that aged invalids with whom, in general, a soft climate agrees, and to whom a moderate degree of humidity is not objectionable, might more particularly derive benefit by residing during the whole year at Penzance. The great mildness of the winter would enable them to be much more in the open air, and they would have less to dread from the coldness of the nights than in any other part of England.

Dr. Couch, an eminent resident medical authority, writes the author of this article as follows:—"It is generally considered that the climate of Penzance is specially suited for invalids who require a mild, equable climate, rather than for those to whom a colder and more bracing air is preferable. People with delicate chests, who cannot bear the cold of an English winter in the middle or northern counties, and have to go to the South of France to escape it, find Penzance suit them well. I have known persons who could live nowhere else, and have to resort here many winters in succession. People who suffer from rheumatism in any form generally find that they get on well here—better than in most places. It does not appear to suit people who have disease of the liver so well as many other places, although in this case I have known exceptions."

As regards the important item of lodgings, we may state that these are both plentiful and cheap all through the winter, but only during that season. The hotels are both commodious and moderate in charges.

The scenery is well known to be scarcely surpassed, of its class, whether in winter or summer.

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Old Manuscript Ink.—The following formula is said to have been in use in 1654, and to have produced an ink of great permanency, if one may judge from manuscript written by the person who is the authority for the formula:—One and one-half drachms of coarsely-powdered galls, six drachms of sulphate of iron, ten drachms of gum-arabic, and one pint of soft water, are to be placed in a bottle, which is to be securely stoppered and placed in the light (sunlight if possible). Stir the contents occasionally until the gum and copperas are dissolved, after which the bottle should be shaken daily. In the course of four to six weeks the ink will be fit for use. The addition of ten drops of carbolic acid will prevent the formation of mould.

# Jottings from the Journals

"Th' ingredients of health and long life are
Great temperance, open air,
Easy labour, littl care."—*Sir Philip Sidney.*

TELEGRAPHY AND HEALTH.—The *Boston Medical and Surgical Journal* says that the conspicuous position in which telegraphers have been placed by the strike in America has served, among other things, to call attention to the great demands made by that calling upon the nervous system of those who follow it. The first-class operators all read by sound, and in a large office where a hundred or more receivers are all buzzing at once, the strain upon the organ of hearing, as well as upon the cerebral centre of audition, protracted as it is through ten hours daily, is very great. Of course, in this, as in every other occupation, it is true to a certain extent that "custom makes it a thing of easiness," yet to discriminate between the longer and shorter dashes in an instrument clicking at the rate of a very large number of words per minute involves, none the less, a very close exercise of the attention, even when it is done only for the regular working hours of the day, while those operators who have been obliged since the strike to work double time have been excessively exhausted. The nervous and muscular energy expended by a rapid sender is perhaps still greater. It is on the whole surprising that "writer's cramp" is not more frequent than it is among telegraphers. It is said that few operators are good for much after the age of thirty-five years.

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VANILLISM.—A distinguished professor of the Faculty of Medicine of Bordeaux, Dr. Layet, has just read an interesting communication on certain injurious properties of vanilla, of which a satisfactory explanation has up to the present been wanting. The affections have been studied at a warehouse in Bordeaux, where, on an average, 25,000 to 30,000 kilogrammes of vanilla arrive every year. In these storehouses the pods are cleaned, sorted, and classed according to their quality. These manipulations seem to cause certain symptoms among the workmen and women. At first an itching of the face and hands, associated with a powerful smarting sensation, is experienced, and the skin becomes covered by a pruriginous eruption, swells, reddens, and desquamates at the end of some days. At other times there is a feeling of malaise, with dulness, stiffness, and muscular pains, which oblige the worker to give up this kind of labour. The cutaneous malady seems to be due to an acarus which appears as a small white rounded body, occupying generally the ends of the pod. This insect does not penetrate the skin like the acarus scabiei, but determines the affection by its mere contact. Probably the parasite is aided in its irritant effects by the presence of "givre" in the form of pale acicular crystals. The nervous symptoms M. Layet is inclined to put down to the manipulation of inferior pods of vanilla containing much oily juice enveloping the seeds in the interior of the siliquæ.—*Land.*

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CLEANSING MATERIAL FOR SHOW-WINDOWS, MIRRORS' &C.—One of the best materials for this purpose is a mixture of calcined magnesia with enough purified benzin to produce, when shaken up, a thick milk. It should be kept in vessels provided with well-ground glass stoppers. For use, a small quantity of the mixture is applied to a muslin rag, or better, to a wad of cotton, and the windows, &c., rubbed with this. It may be very readily cleaned off without leaving any deposit in the corners.

# Our Bookshelf

"Reading maketh a full man."—*Bacon.*

## A BOOK ON VEGETARIANISM.

*The Perfect Way in Diet:* A Treatise Advocating a Return to the Natural and Ancient Food of our Race. By ANNA KINGSFORD, M.D. (Paris). (London: Kegan Paul, Trench, & Co.)

THIS is an interesting book, not so much because Mrs. Kingsford wields her science in the advocacy of vegetarianism, but because she contrives to include within its limits a large number of facts regarding the general physiology and chemistry of foods at large. Mrs. Kingsford's book is a translation of the thesis which she presented for her degree at Paris, and, although here and there she descends to pieces of very special pleading on behalf of vegetarianism, her essay, it should be said, is marked by great lucidity, and by a thorough knowledge of the topic whereof she treats. For example, Mrs. Kingsford devotes a very considerable part of her work to a description of the horrors of the slaughterhouse. The miseries of transatlantic cattle steamers are described; and the spectacle of sharks tearing cattle which had been thrown overboard from a Madagascar steamer (to save the ship, by the way) is also dwelt upon. Frank and candid readers of Mrs. Kingsford's book perusing these pages will naturally ask what all this has to do with vegetarianism? Mrs. Kingsford is surely too wise and accomplished a writer to appeal to mere sentiment where the issue before her is a grave scientific one, to be decided one way or the other by science alone. No one will ever be made a convert to vegetarianism because a slaughter-house is the reverse of æsthetic, or a cattle ship the antipodes of pleasant. Again, Mrs. Kingsford's special pleading is sometimes carried so far that it tends to weaken an otherwise powerful case. What, for example, is the inference to be drawn from the case she mentions (p. 53), wherein a young lady "of nervous temperament" became "intoxicated" on two mutton chops? Simply that she should not eat mutton chops, or flesh of any kind. But surely we are not meant to infer that the case of the young lady is that of mankind at large; and if not, it is hard to discover why Mrs. Kingsford weakens her pages with such details. One case proves nothing. Individual peculiarities and constitutions count for everything in the matter of foods, diseases, habits, and in every detail of life. It is this neglect of the marked differences in constitution in individuals and races which militates against the success of all special pleading in the question of food.

We are not opposed to vegetarianism. On the contrary, we believe it to be for many persons the system most suited to their cases, and best adapted to preserve the body in health. But to argue that a vegetable dietary is that which should be partaken of by all, is to make a statement which does not receive from science or the experience of mankind, any confirmation. That which primarily decides the food of nations is climate. Mankind eat what lies to their hand. The Eskimo is an animal-feeder, because he cannot obtain plants, and because nature has taught him that from the fat of the animals he hunts, he can readily obtain the heat-producing food he requires. In the south, man, surrounded by fruits and grains, easily grown, becomes a vegetarian as naturally as the northerner is an animal-feeder. That which as a secondary matter decides the food of the individual, is temperament or

constitution. We tend to eat that which experience shows us best agrees with us; and through many stumblings we arrive at a suitable dietary. No one who knows anything of the physiology of foods denies that from plants alone man may obtain the necessary nitrogenous and non-nitrogenous matters needed for the support of his body. But he can also obtain such a combination from the animal world alone, or from animals and plants combined. For this country we are persuaded that the mixed dietary is that best suited for an ordinary life. Experience proves this to hold true for the mass. Individual knowledge and research prove that the statement holds true for most of us, and also show that there are exceptional cases in which a vegetable dietary may with advantage supersede the mixed dietary of ordinary life.

Mrs. Kingsford, it should be added, also directs attention (p. 71) to the parasitic dangers of meat-dietary. She rightly shows that "flesh infested by parasites infects the eater of it almost invariably;" but she neglects to add what experience and experiment have shown, that it is badly or imperfectly-cooked meat which places within our frames the parasitic guests. Nobody—not even the most ardent anti-vegetarian—dreams of recommending half-cooked or smoked meats; but if Mrs. Kingsford will peruse Dr. Cobbold's works, she will find evidence therein detailed proving that sufficient exposure of meat to the temperature required for thorough cooking, destroys every parasitic life it may contain. With rigid veterinary inspection and careful feeding, there is no reason why the animals on which we subsist should not be healthy as regards their flesh; and it is notable that even though the ox and sheep are vegetable feeders, they are liable naturally to contract parasitic diseases. Improperly-cooked vegetables give us parasites; but Mrs. Kingsford would not decry vegetarianism simply because its materials were carelessly cooked. And the same rule applies to a dietary in which animal food is contained.

The foregoing remarks contain all that need be said in opposition to the views expressed in this book. We have already expressed our high opinion of its merits. It is ably and clearly written, and will afford the reader a clear and succinct account of the general principles which regulate our food-taking habits. Information of this kind is all-important from a social and sanitary point of view; for "food," as the physical basis of life, lies at the foundation of health, and the obtaining of the best and cheapest foods is a matter which bears very intimately on questions of social and political economy. While Mrs. Kingsford's little book is here and there somewhat partisan-like in its tone, it is, nevertheless, a safe guide where matters of pure physiology are discussed. There is one sentence of Mrs. Kingsford's (p. 12) which seems to contain the clue to the solution of the food-question. Our authoress points out that "it is, in fact, well known that the functions and secretions of the organism accommodate themselves with more or less ease aud rapidity to the habits of life and food of the individual." This is a sound opinion; and as such, shows us that the individual experience of what is most suitable for food should be the best and safest guide in the choice of a dietary.

## LAND AND HOUSES.

*Building Estates*, by Fowler Maitland. With Plans and Illustrations. (London: Crosby Lockwood & Co., 1883.)

Mr. Maitland's work will be found highly useful by all who have to do with the laying-out of building plots and the disposal of land for building purposes. He divides his book into four sections; dealing, respectively, with the general questions of building-lands, with the sanitary aspects of the question, with land tenure, prices and valuations, and with agreements connected with the purchase and sale of building-land. This book is eminently trustworthy, and should be found in the hands of all who desire sound information respecting the relations of owners of the soil, and builders, or those who purchase ground for the erection of houses.

Between 1801 and 1881, Mr. Maitland tells us the population of England and Wales increased from 8,892,536, to 25,968,286 persons. The dwelling-houses during the same period increased from 1,575,923, to 4,833,844, "an increase of 3,257,921 houses, being nearly in the proportion of one house to every five persons."

Mr. Maitland also tells us that 80 acres of ground at Finchley and Hendon, during the last year or two, sold for building purposes at £410 per acre; 9 acres (nearly) at Wanstead, Essex, brought over £1,000 per acre; 10,000 yards at York, 7s. 6d. per yard; 6 acres at Hampstead, £1,333 per acre; 5,117 yards at Stoke-on-Trent, 2s. per yard; 7,169 ditto, 2s. 10d. per yard. At Margate and Westgate, land has realised, for building purposes, from £2,500 to £4,500 per acre. At Weston-super-Mare, land bought for £200 per acre is now selling at £1,200 per acre. These facts show how powerfully the laws of supply and demand affect the prices obtainable for building sites.

## Sanitary Appliances, Etc.

A Useful Invention.—Messrs. H. Vale & Sons, of 210, Summer-lane, Birmingham, have sent us a pair of their "Combination Spectacles and Eyeshades," which we regard as a highly important invention, from a health point of view. The spectacles are of tinted glass, and are made in all varieties and strengths. The feature of Messrs. Vale's "Combination" Spectacles, to which attention must be specially directed, is the eyeshade, which forms part of the glasses. The upper part of the glass each side bears a concave, dark-tinted shade. When the spectacles are worn, not only does the tinted glass diminish light irritation, but the shade above forms a complete protection from the top light, which is so distressing to those who work much by gaslight, and which is provocative of severe headache. For journalists and others these spectacles we deem invaluable. We have used Messrs. Vale's "Combination" for some time in night-work with gratifying results. A total absence of heat, weariness, and fatigue is obtained by the use of these "Combination" Spectacles. It may be added that Messrs. Vale furnished our troops in Egypt with the preserves used in the campaign; and amongst the other inventions of this firm are a complete series of masks, spectacles, and protectors, adapted for the protection of eyes and face in all occupations where a regard for health demands such appliances.

Disagreeable Odour of the Feet.—M. Vieusse, principal medical officer at the Military Hospital at Oran, states that excessive sweating of the feet, under whatever form it appears (whether as mere supersecretion accompanied by severe pain, or with fœtidity), can be quickly cured by carefully-conducted frictions with the subnitrate of bismuth; and even in the few cases where this suppresses the abundant sweating only temporarily, it still removes the severe pain and the noxious odour which often accompany the secretion. He has never found any ill consequence follow the suppression of the sweating.

The "Spécialité" Lime Juice, for family daily use throughout the year, has not the usual musty flavour; will not turn mouldy; may be obtained of Chemists and Grocers.—Feltoe & Sons, Albemarle-street, London, W.—[Advt.]

# Our Letter : Box

"Conference [maketh] a ready man."—*Bacon.*

*NOTICES TO CORRESPONDENTS.*

*All Communications for the Editorial Department (including specimens of Sanitary Appliances, &c.), to be addressed to* "THE EDITOR OF HEALTH," 74-76, *Great Queen-street, London, W.C. Those intended for the Publishing Office to be sent to* "THE PUBLISHER," *at the same address.*

*Contributors are requested to send stamps for the return of the* MSS. *in event of non-acceptance. Every care will be taken to ensure the safety of* MSS., *but the* EDITOR *and* PUBLISHERS *cannot hold themselves responsible for accidental loss.*

*Correspondents are requested to write on one side of the paper only. The* EDITOR *disclaims responsibility for the opinions expressed by Correspondents.*

## LETTERS TO THE EDITOR.

["Letters to the Editor" are held over.]

## QUERIES AND ANSWERS.

[Correspondents will please note that Queries addressed on Post-cards are consigned to our waste-paper basket. If information is worth having, it is at least worth a letter.]

### GENERAL.

ERGO.—Not so far as we have heard; but inquire of the agent.

ALTIORA.—Parkes' "Hygiene" will suit you.

BEGUM.—About 120° F.

PETO.—1. We believe the remark was one of Miss Nightingale's. 2. See "Life of George Combe," by Charles Gibbon (Macmillan).

INTERESTED.—Don't waste your money and risk health by trying any such invention. The whole system is pure quackery.

I. ANDERSON.—See our papers on "The Body and its Structure."

A. TODD.—1. Probably three-fourths. 2. See Mr. Galton's recent works; also Ribot's "Heredity." Darwin's "Pangenesis" will be found in his "Animals and Plants under Domestication."

F. B.—Apply to the Secretary.

A. C. O.—There is one in Glasgow.

C. VERTEGANS.—No; the technical work will be intended for the medical profession. The articles in HEALTH will afford you all the information you can require.

### SANITARY.

OLGA.—It is possible that the street sewer-ventilator may be the cause of the annoyance. Apply to your Sanitary Inspector.

ERMINE.—1. Decidedly injurious. 2. Old "pan" closets should be replaced by newer inventions—*e.g.*, Banner's, Jennings', &c.

C. LAKE.—Not a nuisance legally. You would require to show that it is detrimental to health.

A. Z.—A costly procedure. Don't attempt it.

INFORMATION.—There is such a system. Apply to the makers in Amsterdam.

UBIQUE.—Cut the end off, and discharge the pipe into a gully.

CERTIOR.—You have no remedy in law. The case has occurred before, and has been decided against your views.

INTIME.—An article on "Closets" will appear in an early number.

PLAIN CAKE.—We are of opinion that the flour in your cake is at fault. The stringy threads are probably due to the growth of a fungus, which owes its development to some impurity in the flour. With a change of flour, and using the same ingredients, you will avoid the impurity at present noticed. Try to trace the source of the flour.

F. C. RICHARDSON.—Many thanks for your kind suggestion. The idea has already been under consideration, and we hope to carry it out very shortly.

ANTS.—Have the whole premises thoroughly washed with carbolic acid and water (1 to 10 or 20), and use "B. B. B. Insect Destroyer" (Norman, 37, Walbrook, E.C.), as a certain cure, in our opinion. No; no ill-effects, we should say. Let us hear if our advice is satisfactory.

TINA BRANNEY.—Try Norman's "B. B. B." Insect destroyer, to be had at 37, Walbrook, London, E.C. This has proved successful in destroying insect pests of all kinds.

### MEDICAL.

OLAF.—1. Hot baths are your surest means; but remember that the kidney-affection should be treated as a primary detail. The following will be of service to you:—Bitartrate of potass, three drachms; infusion of buchu, six ounces. A tablespoonful thrice daily. Not to be used constantly. 2. We do not approve of homœopathy, simply on the ground of its unscientific standing and basis. The question is, of course, a very wide one; but, as a system, we cannot commend it.

WEERDE-LEY-MALINES.—Glad to hear HEALTH is appreciated in your Flemish quarters. 1. We do not think you need feel alarmed. A system of sanitation without drainage may be as safe (*vide* our recent papers on "Deodorants and Disinfectants" and the dry-earth system) as one where drains are employed. Use disinfectants; but if refuse is so exposed and turned into manure, it will do no harm, under ordinary circumstances, so long as it is not allowed to contaminate the water-supply. 2. We have not analysed the "Restorer." Add a little iodide of potass solution to it. If it contains lead, a yellow precipitate will be thrown down. We prefer a little Macassar Oil well rubbed into the roots, and, above all, a soft brush. Read our "Hair" papers in early parts of HEALTH. 3. No special antidote beyond a smart emetic to empty the stomach (warm water, mustard, and salt), and stimulants afterwards, if there is collapse. 4. Difficult to advise, where the windows open as yours do. Bore holes in the wood-work and fit wire gauze over them; or have an ordinary flap-valve placed near the ceiling, and opening inwards. Glad to be of any further service to you.

ARTISAN.—See to the state of your bowels, and try a little of Morson's "Pepsine" with your food. You ought to have more outdoor exercise.

VOX HUMANA.—In your case try the effect of a course of cod-liver oil—a dessertspoonful thrice daily after food—or the cod-oil emulsion. Great good may follow this course, which will give you a general toning up. Clothe warmly, and avoid chills.

AN ANXIOUS MOTHER.—See to the children's health, and for the ringworm give cod liver oil poultice, clip away the hair round the patches, and use (for a child of ten or so) a lotion of pure carbolic acid two drachms added to one ounce of glycerine. This to be applied to the patches.

ANXIOUS DOE.—We think you are a little inclined to be over-anxious about yourself. For the chest and hands—the ailments of both, we think, proceed from the same cause—we should strongly advise you to try a course of hot salt baths. If not convenient to visit Droitwich, you might contrive to take such at home three or four times a week at night. A teaspoonful of Fellows' "Syrup of the Hypophosphites" taken in a wineglassful of water thrice daily before food for a time will also benefit you. Mr. Carpenter will doubtless send you his opinion of the "belt" in due time. In respect of future inquiries, please re-state them one at a time. Your food should be light, and no stimulants beyond good claret with meals should be taken.

G. W.—May proceed from various causes. As a preliminary measure, try anointing with pure Vaseline, or with Vaseline to which 3 per cent. of carbolic acid has been added. Look to your clothing, and avoid all irritation. Write again if not bettered.

Y. E.—Don't be nervous or alarmed. You are merely in a low state of health. Take the tonic recommended to "Anxious Doe" above, thrice daily. The eyes will improve when your system is braced up. Meanwhile don't use them at night, and open your eyes under cold water frequently, so as to bathe them thoroughly.

ANOTHER ANXIOUS INQUIRER.—You must not make such demands on your strength at your age. Husband your strength. Your symptoms are those of over-work or over-exertion. We think the hot salt baths and tonic recommended to "Anxious Doe" above would do you good. All your symptoms will likely leave you when your system is braced up. Let us hear from you again. Don't risk cold bathing till you are completely free from your pains. Cases can had for binding Vol. I. of HEALTH. The "Index" is also ready.

MOTT.—No; the poison is not the same, and the effects are very different in respect of their serious character. You have apparently escaped the more serious result. We don't understand the necessity for the course of medicine you name, if the symptoms are as you have described them. There should be no necessity for further treatment, unless the affection is constitutional, and from your account, we should say it is not so. But your medical man is the best judge. The fact that mercury is not to be given is an evidence in favour of our opinion.

D. M'DERMID.—A case like yours demands constitutional treat-

ment. Try the effect of a course of cod-liver oil to which the syrup of iodide of iron has been added. This simple remedy may benefit you greatly; if not, write again.

G. T.—Don't waste your money on such a system. Read our papers on "How to Get Thin or Fat," now appearing in HEALTH. They will show you the rational means of curing corpulence.

T. K.—You are quite healthy, and let no one persuade you to the contrary. What you name is a common result of good health. No remedy needed.

EYESIGHT.—Tobacco varies in its effects with individual constitutions in health and in disease. You should experiment by trying f you are better without tobacco and alcohol—one or both. Smoking after food may delay digestion. Smear the eyelids at night with a little pure Vaseline. Write again if not improved.

R. A. ELLIOT.—See to your general health; use a soft brush, and rub in a little Macassar oil to the roots, night and morning.

STELLA.—You have forgotten to state exact colour of your hair. Kindly say so, and we will advise.

X. Y.—All proceeds from your stomach trouble. Begin by first attending strictly to the condition of the bowels. Take a little "Æsculap" or "Friedrichshall" water every morning for a time. Eat no suppers, and give up tea and coffee for awhile. Rest after meals is also important. (What evidence of parasites have you to offer?) Morson's "Pepsine" should be taken along with your food, which should consist at first of light articles—milk, puddings, soups (Brand's articles should suit you well), fruit, &c. By giving your stomach a complete rest for a time, and by presenting it with easily-digested foods only, you will conquer your symptoms. Let us hear from you after a trial of this advice.

R. P. PARKER.—See full advice given to "Iago," in present No. of HEALTH.

A CONSTANT SUFFERER.—Yes; barley-meal with the milk will do good. We should advise you to try in winter a course of cod-liver oil as a good tonic and strengthening remedy, and let your food be of as fatty a character as possible. This will counteract the tendency to chill, which is only a symptom of general weakness. Beef-tea (well made) should aid you also.

AN ANXIOUS MOTHER.—A Pulvermacher's Belt would do good. Full directions would be sent with the belt. Try the effect, also, of hot salt baths twice or thrice a week, and let us hear shortly how the patient progresses. The food should be light and nutritious.

R. M. D.—1. Such a case depends, as a rule, on some local cause, which only a personal examination by a physician can detect. Hot hip-baths might be tried, along with periodical rest when the pain is felt. 2. The boy's trouble depends probably on some bowel-irritation. See to this, and be sure no irritation from worms exists. Give no fluids late at night, and administer five grains bromide of potass in a little water at bedtime for a night or two.

T. HICKS.—What is meant is that only a small part of the sweating surface should be bathed with the lotion. The skin action is sufficient to carry the effect to the other parts.

MESDAMES.—In the absence of any more definite symptoms we should feel inclined to advise that the food should be very light for a time; that Morson's "Pepsine" should be given along with the food; and that when the pains are severe a hot bath should be tried. The food should consist of light soups, milk (if it can be borne), eggs, lightly cooked, and puddings. Meals to be regular as to time, and rest after food to be observed. If bilious symptoms appear, and if bile is brought up, the following prescription, to be made up by a druggist, may be given:—Podophyllin, 1 grain; compound rhubarb pill, 10 grains; extract of hyoscyamus, 4 grains. The whole to be divided into four pills, and one to be taken every third night.

DORSET.—Give up all stimulants for a time. They are injurious to you. Take open-air exercise. Apply poppy fomentations for the relief of itching; attend to the state of the bowels; and apply benzoated zinc ointment, covering the part with a piece of soft rag. Write again, if not improved.

GWALIA.—Take the tonic recommended to "Anxious Doe," in present number of HEALTH. Open-air exercise and cold sponging should also be tried.

M. CUNLIFFE.—The case you name is in some respects peculiar. You do not name any nervous symptoms, which would account for the appearances. If you send us a stamped-addressed envelope, we will forward you the name of a specialist in nervous diseases. You require a good opinion regarding such a case.

IVY.—Try plain oxide of zinc ointment, instead of the Vaseline, for a time, at night. Glad to hear our advice has been successful.

SIX FEET.—1. Yes; the interval is much too long. You should arrange to have a meal about five. 2. Depends on condition of body and constitution. Some persons perspire much more freely than others. 3. Yes; and to the cod-liver oil, in your case, we should advise you to have syrup of the iodide of iron added.

RASH BOY.—You do not give sufficient particulars to enable us to advise you. Please state fully and exactly all your symptoms.

IAGO.—Use a lotion made by adding two teaspoonfuls of tincture of hamamelis to half a pint of water. This should be used to bathe the parts, and as an injection if need be. The tincture may also be taken internally, a teaspoonful being added to eight ounces of water, and three teaspoonfuls of the mixture taken every three hours.

LILLIAN.—Try the effect of rubbing Rowlands' Macassar Oil into the head morning and night for a time, and also the use of a soft brush. As regards the itching, please specify more clearly its nature, situation, &c., when we will be glad to advise you. The head may occasionally be washed with warm soft water to which bi-carbonate of soda has been added. Take also 15 drops Fer Bravais thrice daily in water.

X.—See to your digestion. Flushing as often as not is a sign of digestive troubles. Rest after food and take a little "Pepsine" with your meals. There is no cure for blushing, which is a purely nervous phenomenon. You may modify it by strict attention to general health.

SURREY.—We know nothing of the person or of his treatment. We have, personally, no faith in such a system, which does not appear to us to be founded upon any data of scientific value. If you wish for a good opinion regarding your condition, we can send you (on receipt of stamped addressed envelope) the name of a trustworthy physician. In your case, great good may result from such a consultation. Glad to be of any further service.

W. D.—No; not injurious to health, but often a sign of robust health. Your case is not excessive; but watch your general health carefully, and avoid all sources of irritation. Sleep on a hard mattress; avoid fluids late at night, and try cold sponging. If need be, we shall advise further; but at present you are quite well.

ESTOMAGO.—Don't take the tonic continuously. Cease taking it for a time, and endeavour by wise regulation of diet, &c., to do without it. You may resume it if you relapse; but no drug should be taken constantly. Take a little Morson's "Pepsine" with your food, and avoid acids, and rest after food.

A. N.—We will send you the address on receipt of a stamped directed envelope. We never recommend practitioners by name in HEALTH.

WORTHING.—We think you should certainly try inhalations. Try compound tincture of benzoin ("Friar's Balsam"). Get an ounce of this, and put a teaspoonful to a pint of hot water, and inhale the vapour for ten minutes, repeating this three or four times a day. Do not go out for half-an-hour after inhaling, as there is a risk of cold. Take about six inhalations in the minute. In your case, cod-liver oil will also do good—a dessert-spoonful thrice daily. Write again, if not improved.

A. B. C.—Yours is a common case, and you ought to know that you will get perfectly well with attention to your general health. Use cold sponging; let your food be nutritious, but not stimulating; sleep on a hard mattress, and take a teaspoonful of Fellows' "Syrup of the Hypophosphites" thrice daily, in a wineglassful of water, before meals. Write again if not improved; but above all, be cheerful and confident.

FRED.—Give up smoking and stimulants, and also tea and coffee. Take cocoa and milk instead. Eat puddings, soups, and fruits, &c., and let your diet for a time be light. A little "Pepsine" should also be taken with the food. Give up taking pills; your regulated diet should avoid the necessity for such medicine. Cold sponging would also do good if you have sufficient reaction. Let us hear how you are after a trial of this advice.

MIDGY.—The "specs" are a symptom of digestive disturbance, and are probably due to some slight liver derangement. If the "specs" appear to remain after attention to your digestion we should counsel you to have your eyesight tested for preserves by Mr. Browning, 63, Strand, London. Avoid reading by gaslight for a time, and bathe the eyes with cold water frequently.

CHELSEA.—Your measurements do not indicate any unusual development. You seem a fairly healthy man, and you are evidently constitutionally thin. 2. Yes; but give up tea and coffee for a time. Your diet is reasonable in quantity and quality. 3. Exercise sufficient under present circumstances of work, life, &c. 4. No; we prefer *not* to wet the head in the morning bath. Many persons acquire headache from wetting the head.

L. MCQ.—Certainly you are wise in your determination to give up the continual dosing of yourself with medicine. You should give up tea and coffee and try a vegetable dietary for a time. This will tone you system wonderfully, and obviate the need for medicine. If any medicine is used, try "Æsculap" mineral water in the morning. If you are not better after following this advice, we shall be glad to advise you again.

T. H.—In your case there is evidently some affection of the drum of the ear. You should see an ear surgeon in Glasgow. There is a means whereby the "drum" may be aided to perform its work,

and such a surgeon will readily apply the remedy. Visit the Ear Hospital in Glasgow.

WIDGEON.—We have always been sceptical regarding the good effects of rum and milk. In any case, such a practice should not be persisted in continuously. If health is obtainable at all, it should be so without such a remedy. If you are healthy, you need nothing else save milk and buiscuit before your walk. To take alcohol in the morning, and without food, is a baneful practice.

W. MARTIN.—1. Use the oil for a month or two to give the advice a fair trial. You wash your head too frequently. This may be the *cause* of your hair-troubles. Once a week is quite sufficient, unless there are special reasons for more frequent ablutions of the head. 2. Try hot salt baths, with 15 grains bromide of potass in a wine-glassful of water at bedtime occasionally, and clothe warmly. 3. No use in singeing the hair.

SESOSTRIS.—Bad teeth are, as often as not, inherited from parents. We fancy you will best be satisfied by consulting a good chemist. Use camphorated chalk as a tooth-powder and a moderately hard brush. 2. Occasionally, adults develop a third tooth. 3. The skins of the grapes tend to produce constipation; the pulp is laxative as a rule. 4. As a mild aperient try "Æsculap" water in the morning.

J. F. G. C.—Better beware of "electric" belts. Read Mr. Carpenter's "Electrical articles" in recent numbers of HEALTH. We recommend Pulvermacher's as a genuine belt (197, Regent-street, London, W). Most so-called "electric" belts are swindles and shams. For your ailments we recommend you to follow the advice given to "A. B. C.," in present number of HEALTH. Be moderate in smoking.

R. SMITH.—Queensland or Canada would suit equally well. You suffer from indigestion, and probably also from slight rheumatism, induced by your heated occupation. You are also evidently over-anxious about yourself. Make a change in your food. Try a vegetable dietary for a time; and take a little "Pepsine" with your food for a time. Hot salt baths taken once or twice a week will ease your pains. Write again, if you still suffer.

W. KAYE.—The children have suffered from a slight attack of fever. Your treatment is correct enough, so far as it goes. See to disinfecting your house thoroughly, and prevent all communication with your neighbours till they are well. You should call in a doctor, for home-treatment in such a case is never satisfactory. The affection is of a mild type, evidently. In the other case, the child suffers from some irritation of the lower bowel. There may be worms. Watch the child carefully, and attend to food, giving her salt therewith, and a hot bath occasionally. Thanks for your good wishes.

W. L. T. B.—You are in good health. What you name is a consequence of health, and only quacks say differently. Don't attend to their sayings; they flourish on the fears of the weak. Live carefully, use cold sponging, and fear nothing.

CARMEN.—Take the tonic recommended to "A. B. C." in present number of HEALTH for a time. The rash you speak of is only an indication of a little lowness of the system, which the tonic will cure. Write again if unimproved.

PERSEVERANS.—You have been excited, and are unduly anxious. You only require rest, good food, and cold sponging, if it can be borne. Pulvermacher's Belts (197, Regent-street, W.) are thoroughly genuine, and we should advise you to call there and see the belts, one of which will do you good. Above all be cheerful, and know your case is eminently curable. Write again, if need be.

DERFLA, N.B.—See advice to "Carmen" and "W. L. T. B.," above.

J. T.—Use a little pure Vaseline at night as an application. This will protect the skin, and may aid its health. Avoid chills above all things. You might try lime-pills, as follows:—Sulphide of lime, 2 grains; sugar of milk, 40 grains. Twenty pills to be made, and one taken every two hours. Avoid tea and coffee.

A. ROWLEIGH.—We think you should persuade the patient to subsist for a time on light foods alone—puddings, milk, eggs, &c. Brand's Beef Essence, &c. A little "Pepsine" with the food would also be advisable. If the "noise" continues, a specialist in nervous diseases should be consulted. Possibly some digestive disturbance is at the root of the matter. Glad to advise again, if need be. A few drops of glycerine might be put in the ears at night for a time, in case there is wax.

MODERN ATHENIAN.—1. See advise to "Mersey" in No. 30 of HEALTH, and "A. B. C." in present No. You need not be alarmed, as such cases as yours are common enough, and only require a little attention to general health and avoidance of all irritation as a means of cure. 2. The person you name is not on the roll of registered medical practitioners of Great Britain. We believe he holds an American qualification.

INDIGESTION.—We think you should give your stomach rest for a considerable time by taking only concentrated foods, such as Brand's preparations, Meat Essence, &c. Live for a time on soups, &c., and eat little and often. By perseverance in this method your stomach will recover its tone. You should also attend carefully to the state of your bowels, and take a little "Æsculap" mineral water in the mornings for a time.

JAMES HACKLY.—Try a vegetable dietary for a time; pay great attention to cleanliness; use soft tepid water for the face; and avoid chills. Write again if not improved.

CRANIUM.—Sponge the head daily in a strong solution of borax and water for dandriff, or apply glycerine of borax at bedtime.

SARAH.—Try hot salt baths three or four times a week; clothe warmly, and avoid chills. Attend carefully to general health. Drink lime-juice (Feltoe's "Spécialité") and let us hear if you are better.

CLAREMONT.—If you will send a stamped and directed envelope we can let you have the name of a physician whose advice will be of service to you in the event of your desiring a consultation. You are evidently in a highly nervous state, and this magnifies all your ailments. Change of scene should do you good. You should continue the tonic you name for a time.

W. ROBINSON.—Take the tonic recommended to "A. B. C.," in present number of HEALTH, and as a local application use a lotion, consisting of one drachm bicarbonate of soda, dissolved in an ounce and a half of glycerine. If not improved, please write again.

WILLIAM BLYTH.—What can we say to you, except that you are evidently nervous by constitution and temperament, and that you are evidently morbidly sensitive? Why should people looking at you make you uneasy? Why not try to have "a good conceit of yourself," like the Kilbarchan weaver? As regards your health, we should advise you to try again the tonic which was prescribed you. Try cold sponging each morning, or when you get up after your night-work. Why should you leave your trade? We should advise you to get day-work in a quiet office.

C. E. BUTLER.—1. At the age you mention, the voice has, in ordinary cases, assumed its adult character. 2. Gargle the throat with vinegar and water, or inhale the vapour of vinegar mixed with water at the boiling-point. 3. Yes; but in such cases we prefer such a tonic as that recommended to "Anxious Doe" in present number of HEALTH, to bromide of potass, which has a somewhat lowering action.

P. LAW.—You should know once and for all that what you mention is a sign of health—not of disease. Only quacks will persuade you differently. You suffer from no ailment whatever.

WRITER.—We suspect the appearance to which you allude must be due to some slight abnormality in the secretion of glands which are associated with the fluid you name. There is no cause, so far as we see, for alarm. Try the effect of cold sponging for a time.

S. B.—Try the effect of wearing a pair of the eye-shades manufactured by Messrs. Vale & Co., Birmingham. The shades are fitted to spectacles, and for night-work are invaluable, in our opinion. Smear the lids at night with pure Vaseline. You must not use the eyes at night without a shade, and the spectacles of Vale & Co. will suit you admirably. We shall advise further, if need be.

VIS MEDICATRIX NATURÆ.—We fancy a change to a purely vegetable dietary would suit your case admirably. Yours is not a case for medicine, but for careful regulation of food. Subscribe to the *Dietetic Reformer*, the organ of the Vegetarian Society in Manchester, and you will find therein advice regarding the diet in question. If you do not find this advice to suit you, write again.

H. I. J.—Consult Mr. Browning, 63, Strand, who will test your sight by a scientific method, and who will give you good advice regarding the preserves best adapted for you. See also advice to "S. B." above.

CORONA.—We do not preserve letters, so your reference to your "last" is out of place. So far as we remember, you gave no history of the affection you name. But from what you do say in your letter, we are of opinion, as before, that yours is not a case for injections. Take 15 drops of *Fer Bravais*, or of Wyeth's "Dialysed Iron," thrice daily. The condition you name depends on your general health being below par. Avoid all exercise for a time, and write again if the iron tonic above recommended does not cure you.

INTERROGATOR.—We know the asylum you name. We advise you to write direct to the Superintendent, and ascertain thus the conditions of admission. Idiots in all stages of imbecility are treated there. Make direct application.

CURIOUS.—As before, all we can say is that we should take the advice of a good surgeon regarding the knee, and be guided entirely by him. The operation named is simple enough in skilled hands. The knee is always a difficult joint to manage after ailments.

SOUTH AFRICA.—First cousins may marry with perfect safety, provided there is no disease on either side. Such marriages are not

unsanctioned by medical science. All that need be said is, that if any constitutional disease exists, it will become intensified by such a marriage; but with complete health there need be no fear. Your construction of Leviticus is nothing to the point.

F. W. D.—The person you name is not a registered medical man. He is, therefore, practically a "quack" in this country, even though he may be an American graduate. His keeping "open shop" and advertising are practices incompatible with the dignity of the medical profession. 2. We do not see that you require any further advice in the matter you name. If you do, please state precisely what you complain of. You seem to be in good health.

S. H. A.—1. There is no evidence that any worms are being passed now. If there is, let us know. 2. For the irritation, use a little plain Vaseline, and attend strictly to cleanliness, washing frequently. 3. Of the "groin trouble" you do not give particulars. So far as we can make out, you have no affection—only a nervous feeling of depression, for which we should recommend you to try the tonic ordered to "T. W. H." in HEALTH, No. 29. Write again if not improved. A simple truss worn for a time could do you no harm.


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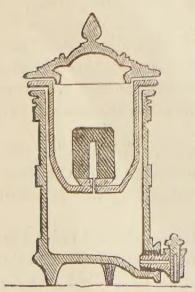

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